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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,315	02/01/2001	Hyun-Sook Jung	41671/DBP/Y35	8247
23363	7590	08/24/2006	EXAMINER	
CHRISTIE, PARKER & HALE, LLP			MERCADO, JULIAN A	
PO BOX 7068			ART UNIT	
PASADENA, CA 91109-7068			PAPER NUMBER	

1745

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/775,315

Applicant(s)

JUNG ET AL.

Examiner

Julian Mercado

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 11 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4 and 11 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 31, 2006 has been entered.

Claims 1-4 and 11 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as obvious over Mayer. (U.S. Pat. 5,783,333).

Claim 11 is newly submitted. Claim 11 is noted to recite the same features as claim 10 (now canceled), insofar as the claim similarly recites a positive active material comprising a less than 1:1 weight ratio of lithium nickel cobalt oxides and lithium manganese oxides. Mayer has been discussed in detail in prior Office actions as teaching a lithium nickel cobalt oxide and lithium manganese oxide in admixture with a polymeric binder solution which is evaporated.

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Claim 11 further recites a conductive agent. In Mayer, a conductive agent such as carbon is disclosed. See col. 12 line 40 et seq.

Applicant's arguments have been fully considered, however they are not found persuasive. Applicant submits that Mayer uses a binder only in the preparation of the electrode and not in the formation of the positive active material as claimed, i.e. used in the preparation of the lithium nickel cobalt oxides and lithium manganese oxides. This argument is not persuasive. A similar if not identical argument has also been addressed in the prior Office action. In this regard, see col. 12 line 60 et seq. of Mayer as follows: "Initially, all solid components of the cell—including lithium metal oxide(s), electronic conductors, etc.—are mixed. Next, they are formed in a slurry using a solution of the binder." As asserted in the prior Office action, the binder is used in both the electrode and the active material.

As set forth in the prior Office action, the declaration under 37 CFR 1.132 filed on December 1, 2005 is insufficient to overcome the rejection of claim 10 based upon Mayer. The declaration sets forth a comparison between battery cells without binders (allegedly as in Mayer) and battery cells with binders, as in the claimed invention. The comparison, however, falls short in establishing any differences, as the binder in Mayer is used in both the electrode and the active material. Thus, the declaration is not deemed representative of any differences that may exist between the prior art and applicant's claims. As a final note, as to Mayer failing to teach the use of a first binder in the positive active material and a second binder in the positive electrode, the examiner notes that the claims merely recite "a first binder"—recitation of a second binder in the positive electrode appears to have been wholly omitted from the claim.

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Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pynenburg et al. (U.S. Pat. 5,429,890) in view of Hasegawa et al. (U.S. Pat. 5,370,948).

The rejection is maintained for the reasons of record. The examiner notes that claims 1-4 are submitted for consideration as previously presented. The scope of the present claims is the same as that previously considered in the prior Office action.

Applicant's arguments have been fully considered, however they are not found persuasive. Applicant submits that Pynenburg et al. does not disclose the combination of oxides as recited in independent claim 1. To this extent, applicant is reminded that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Pynenburg et al. in view of Hasegawa et al. is maintained to teach or at least suggest the claimed combination of oxides. See, for example, the March 6, 2003 Office action on page 3, the ground of rejection based on Pynenburg et al. in view of Hasegawa et al. being maintained throughout the course of this application's prosecution.

As set forth in the prior Office action, the declaration under 37 CFR 1.132 filed on December 1, 2005 is insufficient to overcome the rejection of claims 1-4 based upon Pynenburg et al. in view of Hasegawa et al. Furthermore, the comparative examples are based on a $\text{Li}_{0.98}\text{Ni}_{0.82}\text{Co}_{0.18}\text{O}_2$ compound and not a $\text{LiNiMn}_2\text{O}_4$ compound as otherwise taught by the prior art. The "Overall Results" are also not found commensurate with the comparative data. See, for example, the discharge capacity of Example 2 at 158 (said to be "Good") as compared to the

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discharge capacity of Comparative Example 2 at 162 (said to be “No Good”)—how can a higher discharge capacity of 162 be “No Good” compared to a lower discharge capacity of 158?

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



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PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER